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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,662	03/18/2004	Phillip M. Starr	HES 2003-IP-009618U1	6012
29920	7590	08/30/2006	EXAMINER	
JOHN W. WUSTENBERG P.O. BOX 1431 DUNCAN, OK 73536			NEUDER, WILLIAM P	
			ART UNIT	PAPER NUMBER

3672

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/803,662	Applicant(s) STARR ET AL.	
	Examiner William P. Neuder	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7, 9-29, 32-40, 42, 43, 45-49, 51, 52 and 54-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32-38 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 9-29, 39, 40, 42, 43, 45-49, 51, 52 and 54-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 51 and 52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims depend from canceled claim 50.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,5,7,9-16,20-29,39,40,42,43 and 45-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Owens et al 5607017 (applied in previous office action).

Owens discloses a downhole tool 16 that is dissolvable (30) when contacted with a well fluid. The well fluid being a chemical solution. The well fluid can be stored in a frangible enclosure 46 (figure 5) that is breakable. As to claims 5 and 20, sheath 26 can be chosen to dissolve over a function of time. As to claim 7, a control mechanism 28 releases the chemical solution from the enclosure. As to claims 9 and 28, the control

mechanism can be timer controlled. As to claims 10-12,25-27 and 29, the control mechanism 28 can be hydraulically, mechanically or electrically operated. Means 28 can also be operated by a communication means (See col. 3, lines 26-57). As to claims 13-15 and 39, plug 16 is considered a bridge plug, frac plug or packer. As to claim 16, the method involves dissolving plug 30 by a chemical solution after breaking the frangible enclosure 46. As to claim 21, the chemical solution may be customized to achieve a desired dissolution rate. As to claims 22-24, the chemical solution can be applied to the tool before, during or after downhole operations. As to claim 42, the enclosure is in the tool. As to claims 43 and 45-48, control mechanism 28 can be hydraulically, mechanically or electrically operated and comprises a frangible enclosure body. The control mechanism can also be actuated by a line extending from the surface. As to claim 49, the activation means can be timer controlled. As to claim 43, casing 22 is a conduit for delivering well fluid.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2,3,17,18,54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Owens et al (applied above) in view of Gano EP 0681087 (applied in previous office action). Owens is considered to disclose all of the claimed features except for dissolvable plug body 30 being formed from fiberglass and a binding agent. Gano discloses a downhole plug 70 that is removable by well fluid where the plug is formed from fiberglass and a binding agent (col. 3, lines 44-56). It would have been considered obvious to form the dissolvable plug of Owens from fiberglass and a binder as taught by Gano since both Owens and Gano are to dissolvable plugs that are dissolvable by well fluid and the plug body of Owens could be formed from any known material that dissolves with application of well fluid.

Claims 4,19 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Owens et al (described above) in view of grimmer (applied in previous office action).

It would have been considered obvious to use an acidic solution to dissolve the plug of Owens as taught by Grimmer in view of Grimmer's teaching that well tools can be dissolved by acidic solutions.

Claims 32-38 are allowed.

Response to Arguments

Applicant's arguments filed 7/21/06 have been fully considered but they are not persuasive. Applicant's arguments with respect to Gano and Grimmer have been concurred with and these rejections have been dropped. With respect to Owens, applicant argues that the flexible sheath of Owens that is pierced is not a frangible enclosure that is broken. This is not agreed with. First, clearly the sheath defines an enclosure. From Webster, frangible means easily broken. Piercing is breaking and no distinction can be seen between applicant's claimed frangible enclosure that is broken and the figure 5 embodiment of Owens.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Neuder whose telephone number is 571-272-7032. The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3672

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



William P Neuder
Primary Examiner
Art Unit 3672

W.P.N.